



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**

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Secretary

ROBERT W. GOLLEDGE, Jr.  
Commissioner

February 2, 2004

Dear Public Water Supplier:

This letter is being sent to inform you that the Drinking Water Program (DWP) is planning to adopt emergency regulations that will require community and non-transient non-community (NTNC) water systems to monitor for perchlorate over the next year to collect occurrence data on perchlorate.

Perchlorate is widely used as a component of propellants in rockets, missiles, and fireworks. Perchlorate is a human health concern as it can interfere with iodide uptake into the thyroid gland, which can disrupt thyroid function and can potentially disrupt fetal and child development.

Due to this concern, the DWP is moving forward to determine whether a Maximum Contaminant Level (MCL) for perchlorate is needed. To reach this point, the DWP needs more sampling data to determine the degree to which perchlorate exists in Massachusetts' drinking water sources. The only occurrence data available to date was collected during 2001 to 2003 under the federal Unregulated Contaminant Monitoring Rule (UCMR) that required monitoring for perchlorate by a subset of drinking water sources. The UCMR was conducted to provide data to EPA to support a decision on whether or not to regulate additional contaminants under the Safe Drinking Water Act in the future for the protection of public health.

To address perchlorate occurrence, the Department will be moving forward to promulgate an emergency regulation that will become effective February 27, 2004 and will immediately require all community and NTNC water systems to monitor for perchlorate over the course of a year. Eventually this occurrence data will provide results to determine if monitoring should continue and whether an MCL for perchlorate should be established. This requirement will be codified in the Drinking Water Regulations, 310 CMR 22.06D through an emergency regulation change.

The Department's monitoring strategy will be based on the federal monitoring requirements that were used for the UCMR. The DWP sampling requirements will expand on the UCMR results by including all community and NTNC systems and require that the analytical methodology (a

modification of the approved EPA UCMR method 314.0) meet a more stringent performance measure. The Department will require that labs report the results to a level of 1 ppb. The proposed monitoring for groundwater systems will require sampling at each entry point to the distribution system, which is representative of each well after treatment (hereafter called a sampling point) beginning in April 2004 and again during the month of September 2004. The system will take each sample at the same sampling point unless conditions indicate another sampling point would be more representative of each source or treatment plant. Surface water systems will begin sampling at their sampling points beginning in March 2004 and continue in each calendar quarter (April to June, July to September, and October to December) until December 31, 2004.

Analysis for perchlorate will be conducted using EPA Method 314.0, revision 1.0, November 1999, "Determination of Perchlorate in Drinking Water Using Ion Chromatography" as modified to achieve the performance requirements of a reporting level of 1.0 ug/L (ppb) with a method detection limit below this level.

Analysis for perchlorate must be conducted by an EPA approved laboratory for monitoring perchlorate under the UCMR (40 CFR 141.35), provided that the laboratory has maintained certification using an ion chromatography method and can demonstrate to the Department that it can achieve the more stringent performance requirements of this regulation. The full list of laboratories approved by EPA for UCMR perchlorate monitoring can be found at:

<http://www.epa.gov/safewater/standard/ucmr/aprvlabs.html#percanchor>.

By the effective date of the regulation, the Department will post a list of the laboratories which have demonstrated the more stringent detection limits at:

<http://www.state.ma.us/dep/brp/dws/dwsforms.htm#quality>.

The results of this monitoring must be sent to the DWP regional offices by the tenth of the following month of each round of sampling. By the end of September 2004, the DWP should know the occurrence of perchlorate in groundwater. At that time, the DWP will evaluate the occurrence data against health effects data, existing treatment options, and lab capacity. Once the analysis is complete, the DWP will make a determination of whether to promulgate an MCL. If an MCL is promulgated before the sampling results for surface water supplies have been completed, the DWP will amend the regulations to include surface water.

**If perchlorate is detected in these monitoring results, water suppliers should contact their DEP regional office immediately.** If the result is above 1 ppb, the public water supply must provide public notice to sensitive population subgroups, which include pregnant women, infants, children up to the age of 12 and individuals with hypothyroidism. These people should not consume water that contains concentrations of perchlorate that exceeds 1 ppb. Language for this public notification is available from each regional office of the Department. The Department is working to develop guidance for other situations. This guidance will also be available and posted at DEP's Office of Research and Standards (ORS) website at: [www.state.ma.us/dep/ors](http://www.state.ma.us/dep/ors) prior to the release of the first round of sample results. A health effects statement on Perchlorate is also available at the ORS website.

If you have any questions regarding this new regulation, please contact the following regional contacts:

Jim Persky	NERO DWP at (617) 654-6536
Terry Martin	SERO DWP at (508) 946-2765
Paul Anderson	CERO DWP at (508) 767-2802, or
Kelly Momberger	CERO DWP at (508) 849-4023
Michael McGrath	WERO DWP at (413) 755-2202, or
Damon Guterman	Boston DWP at (617) 574-6811

Sincerely,

David Y. Terry, Program Director  
Drinking Water Program

cc: DWP Regional Chiefs/Point of Contacts  
Local Boards of Health  
Certified Laboratories  
Suzanne Condon, DPH  
Kevin Reilly, EPA Region 1